AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An imager apparatus comprising:

a pixel array having an active imaging area and a non-active area, ~~said active area and non-active area being defined by an opaque mask provided over the pixels in said non-active area~~, said pixel array having a plurality of first pixels in said active area and a plurality of second pixels in said non-active area; and

~~said~~ a mask having a plurality of apertures respectively located over and exposing ~~at least one of~~ said second pixels.

2. (Currently Amended) The imager according to claim 1, wherein at least some of said apertures of said mask are of different sizes.

3. (Currently Amended) The imager according to claim 2, wherein said different sized apertures expose said ~~at least one~~ second ~~pixel~~ pixels to differing amounts of light.

4. (Currently Amended) The imager according to claim 2 ~~1~~, wherein said apertures of said mask are gradiated such that each successive aperture is larger than one adjacent to it.

5. (Currently Amended) The imager according to claim 2 ~~1~~, wherein said mask is made of metal.

6. (Currently Amended) The imager according to claim 2 ~~1~~, wherein said second pixels comprise at least one row of pixels outside said active area.

7. (Currently Amended) The imager according to claim ~~1~~ 2, wherein said second pixels comprise at least one column of pixels outside said active area.

8. (Currently Amended) The imager according to claim ~~1~~ 2, wherein said second pixels are a different size from said first pixels.

9. (Currently Amended) The imager according to claim ~~1~~ 2, wherein said second pixels are covered by a color filter.

10. (Currently Amended) The imager according to claim ~~1~~ 2, wherein a signal from ~~said~~ at least one second pixel is used to determine light intensity.

11. (Currently Amended) The imager according to claim ~~1~~ 2, wherein a signal from ~~said~~ at least one second pixel is used to calibrate an analog to digital converter.

12. (Currently Amended) A method of determining light intensity in an imager, said method comprising:

shining a light of predetermined intensity through a mask over an array, said array comprising an active imaging area having a plurality of first pixels and a non-active area having a plurality of second pixels and said mask comprising apertures having varying aperture sizes over ~~at least one of~~ said second pixels;

determining a light intensity ~~by comparing~~ threshold for saturation ~~points~~ of said second pixels ~~with~~ based on varying exposures corresponding to said varying aperture sizes; and

determining an integration time of the first pixels based on the determined light intensity.

13. (Currently Amended) The method according to claim 12, ~~wherein feedback of said comparison of saturation points of said second pixels is provided to a chip, wherein said chip varies~~ further comprising:

varying an integration time for said first pixels based on said light intensity determination.

14. (Original) The method according to claim 12, wherein said second pixels comprise at least one row of pixels outside said active area.

15. (Original) The method according to claim 12, wherein said second pixels comprise at least one column of pixels outside said active area.

16. (Original) The method according to claim 12, wherein said varying aperture sizes of the mask are gradiated such that each aperture is larger than the one adjacent to it.

17. (Original) The method according to claim 12, wherein said second pixels are a different size from said first pixels.

18. (Original) The method according to claim 12, wherein said second pixels are covered by a color filter.

19. (Currently Amended) A method of calibrating analog to digital conversion of an analog to digital converter in an imager comprising:

shining a light of predetermined intensity through a mask over an array, said array comprising an active imaging area having a plurality of first pixels and a non-active area having a plurality of second pixels and said mask comprising apertures having varying aperture sizes over ~~at least one of~~ said second pixels;

measuring light received at said second pixels exposed by the varying sized apertures;

converting said measured light received from an analog to a digital signal; and

calibrating said analog to digital conversion using the digital signal.

20. (Original) The method according to claim 19, wherein said digital output from each of said second pixels is compared with an expected digital output and a voltage ramp is created from said comparison to test and calibrate analog to digital conversion.

21. (Original) The method according to claim 19, wherein said second pixels comprise at least one row of pixels outside said active area.

22. (Original) The method according to claim 19, wherein said second pixels comprise at least one column of pixels outside said active area.

23. (Original) The method according to claim 19, wherein said varying aperture sizes of the mask are gradiated such that each aperture is larger than the one adjacent to it.

24. (Original) The method according to claim 19, wherein said second pixels are a different size from said first pixels.

25. (New) The imager apparatus according to claim 2, wherein said active area detects light for image formation and said non-active area detects light for calibration of gain characteristics.

26. (New) The method according to claim 12, wherein said active area detects light for image formation and said non-active area detects light for calibration of gain characteristics.

27. (New) The method according to claim 19, wherein said active area detects light for image formation and said non-active area detects light for calibration of gain characteristics.

28. (New) The imager apparatus according to claim 3, wherein only said aperture sizes vary said respective exposures of said second pixels to said light.

29. (New) The method according to claim 12, wherein only said aperture sizes vary said respective exposures of said second pixels to said light.

30. (New) The method according to claim 19, wherein only said aperture sizes vary said respective exposures of said second pixels to said light.

31. (New) A method of calibrating a gain characteristic of an imager, said method comprising:

shining light on a plurality of pixels;

varying respective exposures of said pixels to said light;

first determining said light has saturated a first pixel of said pixels;

second determining said light has not saturated a second pixel of said pixels; and

calibrating a gain characteristic for image formation based on said respective exposures of said first and second pixels.

32. (New) The method according to claim 31, wherein said step of shining light on said plurality of pixels includes shining one of red, blue, or green light on said plurality of pixels, and

said step of calibrating said gain characteristic for image formation includes calibrating said gain characteristic for a respective one of red, blue, or green pixels of said imager.